REMARKS

Claims 1, 3, 4, 8 and 9 remain herein. The subject matter of claim 6 has been added to claims 1 and 9. No new matter has been added.

Applicants thank the Examiner for conducting an interview with applicants' representative on January 5, 2009. The Examiner stated that he then believed the claims would be allowable if the limitations of claim 6 were added to claims 1 and 9, but that he would to reexamine the claims before allowance thereof.

1. Claims 1, 3, 4 and 6-9 were rejected under 35 U.S.C. § 103(a) over Heath U.S. Patent 5,941,069 and Berriman U.S. Patent 6,745,562. Claims 6 and 7 have been cancelled, mooting the rejections thereof. However, since the subject matter of claim 6 has been added to claims 1 and 9, they are discussed below.

Neither Heath nor Berriman discloses a dilution and dispersion device mounted to an end of a channel, as recited in applicants' claim 9. On the contrary, the fan of Heath is located within the exhaust channel formed by pipe 12, housing 26, and the pipe adjacent to muffler 102.

The Office Action admits that Heath fails to disclose a hub comprising at least one hole for permitting substantially unidirectional flow of exhaust gases through the dilution and dispersion device, as recited in applicants' claims 1 and 9. The Office Action asserts that Berriman discloses what Heath lacks. Berriman discloses a diverter 70 for evenly distributing gas into a catalytic converter. The diverter 70 is fixed within a transfer pipe section 50 by mounting brackets 72. Brackets 72 are not blades, either for generating a low-pressure area behind a fan, as disclosed in Heath, or for dispersing gas, as recited in applicants' claims. Rather, they are brackets for fixing the diverter to the pipe section 50. The diverter is located between a narrow upstream pipe 42 and a larger-diameter converter-holding pipe 32. The diverter increases even distribution of gas within

the larger pipe by allowing some gas to pass through holes 82, 90 in the diverter element 70, and diverting some gas to an outside of the diverter element 70.

Heath and Berriman, combined, fail to disclose every element of applicants' claims 1 and 9, because adding holes to the hub 28 of Heath would not permit substantially unidirectional flow of exhaust gasses through the fan of Heath. The hub 28 of Heath rotates around an axle 32. See Heath, col. 3, lines 35-37, 44-47. Thus, any air passing through holes in the hub 28, would have a rotation element corresponding to the rotation of the hub 28 around the axle 32.

Further, neither Heath, Berriman, nor any other prior art of record contains any disclosure would have motivated one of ordinary skill to combine Heath and Berriman to disclose every element of applicants' claims. In fact, adding the holes of Berriman's diverter to the hub of Heath's fan would render Heath's fan inadequate for its intended purpose. MPEP 2143.01(V) states: "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." While the Office Action states that the fan 14 of Heath is a "dilution and dispersion device," as recited in applicants' claims, the purpose of Heath is the opposite of dilution and dispersion.

Heath discloses a fan within an exhaust system for increasing the rate of the flow of exhaust gas through the exhaust system. However, adding holes, as disclosed in Berriman, to the hub 28 (or axle 32) of Heath would decrease the rate of the flow of exhaust gas through the exhaust system. The fan of Heath has a hub 28 mounted on an axle 32. Blades 30 are mounted to the hub 28. The fan of Heath is powered, either by a motive means 100 or by an airflow other than the exhaust (see Heath, Figs. 1, 3, 4a-c, and 6, element 25; Fig. 2, element 100; col. 3, lines 22-26,

col. 3, line 62—col. 4, line 12; col. 4, line 32-36, 53-58; col. 8, lines 4-11) to generate a region of low pressure downstream, drawing exhaust from the combustion chamber. See Heath, col. 4, lines 7-12; col. 5, lines 4-7; col. 7, lines 42-46.

The Office Action states that putting holes in the hub 28 of Heath would result in "an improved system for increasing the flow rate of the exhaust gas." The opposite is true. Putting holes in the hub 28 of the fan in Heath would decrease the flow rate through the fan assembly by diverting air from the blades 30 that increase the flow rate of the exhaust gasses. Since putting holes in the hub 28 of the fan in Heath would decrease the flow rate of air through the fan assembly, such a modification would render the resulting fan unsuitable for its intended purpose.

Regarding the limitations of prior claim 6, the Office Action asserts that the "ring" 16 in Heath is rotatable with respect to the hub 28. However, bushing 16 in Heath cannot be a "ring" as defined in applicants' claims. A "bushing" is a lining used to reduce friction. (Webster's II New College Dictionary) See Heath, col. 3, lines 43-47. It is attached to the inside of the hub 28 to reduce friction with the hub 28. See Heath, col. 3, lines 42-43. However, the "ring" as defined in applicants' claims 1 and 9 encircles the hub and has blades attached thereto. Heath states that the bushing 16 and hub 28 rotate with respect to the axle 32. However, Heath fails to disclose that the bushing 16 rotates with respect to the hub 28. Since Applicants made this distinguishing argument in the Remarks of the July 18, 2008 Amendment, and yet the PTO maintained the rejection citing Heath, Applicants respectfully request the PTO to provide a specific citation in Heath that discloses a ring having blades attached thereto and which rotates with respect to hub 28.

For the foregoing reasons, Heath and Berriman are inadequate grounds for rejecting claims 1, 3, 4, 8 and 9 under 35 U.S.C. § 103(a). Reconsideration and withdrawal are respectfully requested.

Accordingly, all claims 1, 3, 4, 8 and 9 are now fully in condition for allowance and a notice to that effect is respectfully requested. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

STEPTOE & JOHNSON LLP

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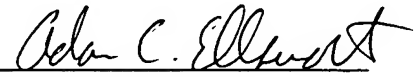

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